

## CONSTRAINTS FACED BY THE FARMERS OF FRINGE VILLAGES OF KAZIRANGA NATIONAL PARK IN LIVESTOCK REARING, ASSAM, INDIA

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### ABSTRACT

*An investigation was undertaken to study the constraints faced by the villagers in the fringe areas of Kaziranga National park. Five villages were selected and 20 livestock rearers from each village were randomly chosen making a sample size of 100. The chronological order of constraints faced by them were Lack of rearing area, Flood problems, Fodder scarcity, Problem after losing livestock to wild animals, Conflict with wild animals, Problem from forest stuff regarding rearing of livestock in forest areas, Lack of knowledge on rearing system, No technical support and assistance, Lack of electricity and Theft, No timely treatment and vaccination, Regarding livestock transportation, Purchasing of goods, Marketing of livestock and its by-product.*

**KEYWORDS:** Constraints, Farmers, Fringe Villages, Livestock, & Kaziranga National Park

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### INTRODUCTION

Rural societies including fringe villages are our countries foundation stones. They need extensive extension education and services in the way which brought amazing development across the rural communities in other parts of world like USA and UK. Livestock as an instrument of rural development has been a concept of many rural development programmes. Kaziranga of Assam in India is still considered and recognized as one of the difficult areas, where people are poor, livestock are hardy but yields are poor. Agriculture and animal husbandry are the sole means of livelihood for people of this region. It is also the treasure-trove of man, land, animal and

forest diversity. Although agriculture and animal husbandry are the sole means of livelihood for the people of these fringe regions, they encounter many constraints (Shrivastava and Heinen 2010). Therefore, the present study was undertaken to find out the constraints faced by these fringe villages of Kaziranga National park in livestock farming.

## MATERIALS AND METHODS

Five villages from four wildlife ranges of Kaziranga National park, namely Agoratoli range, Kohora range, Bagori range and Burapahar (Ghurakati) range were selected for the study. 20 livestock rearers from each village were randomly chosen making the total sample size to be 100. In the present study, constraint was operationalised as certain force(s) that hampers the farmers in livestock farming and its management. Respondents were asked to express some of the important constraints faced by them in livestock rearing in the fringe areas. The frequency of the respondents was calculated and compiled according to the responses obtained by interviewing them with the help of a structured interview schedule.

## RESULTS AND DISCUSSIONS

### Profile of the Respondents

Majority (58.00 %) of the respondents belonged to middle aged group (31-47 years) and had medium (4-5 nos) sized family. A good number (32.00%) of them belonging to schedule tribe caste followed by Other Backward caste (31%) and Agriculture was the primary occupation for 66.00 % of them. A very large majority (77.00%) of them maintained medium (3-5 Cattle unit) herd size where, indigenous cattle are mostly preferred by them for rearing. Cent per cent (100 per cent) of the respondents reared livestock mainly for livelihood security, followed by Draught Purpose, Economic Purpose and Traditional Purpose.

### Constraints Faced by the Respondents

Among all the constraints faced by the fringe villagers 'lack of rearing/ grazing area for livestock' was ranked first which was closely followed by 'flood problems' (Table. 1). Fodder scarcity, problem after losing livestock to wild animals, and conflict with wild animals were ranked third, fourth and fifth respectively. The problem from forest stuff regarding rearing of livestock in the forest fringe areas was ranked sixth and lack of knowledge on rearing system of livestock and 'no technical support and assistance' were ranked seventh and eighth respectively. Similarly 'others' including lack of electricity, theft of livestock etc., 'no timely treatment and vaccination of livestock', 'transportation problem of livestock' and 'purchasing of goods for the livestock' were ranked ninth, tenth, eleven and twelfth respectively and the last rank was given to marketing of livestock and its by-product (Table. 1).

**Table 1: Over all Constraints Faced by the Fringe Villagers of Kaziranga National Park**

Sl. No.	Constrains	Percentage (%)	Ranking
1	Lack of rearing /grazing area for livestock	29	I
2	Flood	28.5	II
3	Scarcity of fodder	28	III
4	Problem after losing livestock to wild animal	27	IV
5	Conflict with wild animals	26	V
6	Problem from wildlife stuff regarding rearing of livestock in the forest fringe areas	25.5	VI
7	Lack of knowledge on rearing system of livestock	23	VII
8	No technical support and assistance (by the veterinarian, extension workers, forest deptt.etc. regarding livestock management/A.H. practices)	22.5	VIII
9	Others (Electricity, theft, diseases outbreak etc)	22	IX

Table 1: Contd.,			
10	Timely treatment and vaccination of livestock	21	X
11	Transportation of livestock	18	XI
12	Purchasing of goods for the livestock	16	XII
13	Marketing livestock and its by-product	14.5	XIII

The above mentioned constraints perceived by the respondents in the fringe villages clearly reflected the situation under which the respondents had to rear livestock. The lack of grazing area/ rearing area was the first and the foremost constraint. The surrounding area of the respondent's dwellings consisted of forest territory/reserve forest and cultivated land which virtually left the respondents with small plot to spare for livestock rearing. On the other hand the devastating flood in Assam is a regular annual phenomenon which has not only created havoc to wild animals of the Kaziranga National park but also to the domestic animals in the fringe areas causing much distress to the livestock as well as to their owners. Similar finding was reported by Kutum *et al.* (2011).

Scarcity of fodder was also a major problem because of the shrinkage of land available to the respondents. Moreover the fodder grown in the forest territory was meant for wild animals and the respondents were often prohibited from collecting such fodder. Therefore scarcity of fodder was also perceived as an important constraint. The respondents used to face constant threats to their livestock from wild animals after letting them loose for grazing. The area being a fringe this constraint was unavoidable. Similar result was seen by Ukoje (2016).

Conflict with wild animals was another constraint perceived by the respondents. It was reported that wild animals come out of the forest and damage standing crops thus depriving the respondent from utilizing the by-product of agriculture in livestock farming. Similar finding was reported by. It was also reported that the forest staff and guards used to create hazard to livestock owners in one way or other in the name of rules and regulation and therefore the respondents perceived it also as a constraint. Similar finding was reported by Das and Tripathi (2013).

Lack of knowledge on rearing system of livestock was also perceived as a constraint. The respondents were lacking required knowledge and present finding only exposed their tendency to acquire such knowledge provided they got a chance to do so. Further, it was also observed that the initiatives to provide assistance and technical support for livestock management/A.H. practice by the veterinarian, extension workers and forest department were not adequate. Similar finding was reported by Borgohain *et al.* (2014).

It was interesting to note that ninth rank was assigned to a constraint other than the selected ones for the study where irregular supply of electricity, frequent incidence of diseases outbreak among livestock and occurrences of theft of livestock were mentioned. These were some of the common features of rural Assam and therefore the fringe areas were no exception to this. Although the timely treatment and vaccination of livestock was assigned tenth rank it is important from its adjacent national park point of view. The livestock in the fringe areas, if allowed to remain untreated, were bound to spread the diseases to the wild animals in the National park. However the other three constraints perceived by the respondents were of less importance. It was because every weekend there used to be daily market/ bazaar in and around every village of Kaziranga National park. So they gave less importance to the last three constraints. Similar result was seen by Das and Tripathi (2013).

## CONCLUSIONS

### Summary

Although livestock rearing was a part of the fringe villagers, they encountered with few major constraints as they were in the conflict and influence zone of the park resulting inadequate rearing and grazing areas for livestock, perennial flood problems, acute fodder scarcity, constant conflicts with wildlife in terms of crop/huts-men damage and lifting/killing domestic animals by wild animals. The fringe villagers blamed shortage of rearing (grazing) area for livestock and scarcity of fodder as the foremost constraints to livestock rearing. The fodder availability can be balanced by adopting the practice of hay making. Conservation of excess grasses as hay seems most easy and convenient method under the local situations to combat the feed scarcity situation to a great extent.

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